

Performance Based Bonus Business Rules

General Requirements

The purpose of the Performance Based Bonus is to provide incentive payments to qualifying districts for data-driven participation, achievement, and achievement improvement measures.

The Performance Based Bonus incentive payments are provided from \$30-\$100 per pupil.

- Districts making the performance objective(s) at the elementary/middle school math level are awarded \$30 per pupil.
- Districts making the performance objective(s) at the elementary/middle school reading level are awarded \$30 per pupil.
- Districts making the performance objective(s) at the high school level are awarded \$40 per pupil.
- The funds released in Fall 2014 (FY 15) are based on the data through 2012-13. The previous years are the same business rules, with Fall 2013 (FY 14) based on data through 2011-12 and Fall 2012 (FY 13) based on data through 2010-11.

Performance Incentive Payments to Qualifying Districts for High School Improvement

Create a table to hold the aggregate data for all districts. The data for each district will be in one row of the table. The data will come from the accountability student details tables.

Note: Private school students and homeschooled students are excluded from all calculations. Students must have a Student ID in order to be included in the calculations. The students' grade in the above tables must be grade 11 for all MI-Access tests and MME tests in years 2008, 2009 and 2010. MME tests in Spring 2011 and after will include students in both grades 11 and 12.

The legislative document requires three tests to determine the districts eligible for the high school payment. Quotes from the document are noted with quotation marks.

Test 1 Full Academic Year Students:

"THE DISTRICT HAD AT LEAST 20 FULL ACADEMIC YEAR PUPILS TAKE ALL TESTED SUBJECTS ON THE MICHIGAN MERIT EXAMINATION OVER EACH OF THE MOST RECENT 4 YEARS."

Create views that tally the number of high school students in the district that had valid MI-Access or MME tests for a test cycle and who were full academic year students.

For those districts testing high school students: if there are 20 or more students in each of the above columns, a "Yes" is entered as having met the minimum 20 tested criteria.

Test 2 Linear Regression for Period 2010 to 2013:

"CALCULATE A LINEAR REGRESSION OF THE PERCENTAGE OF HIGH SCHOOL PUPILS IN THE DISTRICT TESTING AS PROFICIENT IN ALL TESTED SUBJECT AREAS ON STATE ASSESSMENTS OF HIGH SCHOOL PUPILS ON SCHOOL YEAR OVER THE 4-YEAR PERIOD ENDING WITH THE 2012-2013 SCHOOL YEAR AS ADJUSTED FOR CHANGES IN CUT SCORES MOST RECENTLY ADOPTED FOR THE MICHIGAN MERIT EXAMINATION."

The linear regression formula to be applied to the four years of data from 2010 to 2013 is as follows:

$$[(\text{sumxy} - (\text{sumx} * (\text{sumy} / \text{nyears}))) / \text{nyears}] / [(\text{sumxx} - (\text{sumx} * (\text{sumx} / \text{nyears}))) / \text{nyears}]$$

The result of the regression calculation will be placed in a slope labeled column in the data.

The Legislative Document then requires a calculation of the state average for districts over that same four year period: *"CALCULATE A STATEWIDE AVERAGE FOR ALL DISTRICTS OPERATING A HIGH SCHOOL OF THE LINEAR REGRESSION OF THE PERCENTAGE OF HIGH SCHOOL PUPILS TESTING AS PROFICIENT IN ALL TESTED SUBJECT AREAS ON STATE ASSESSMENTS OF HIGH SCHOOL PUPILS ON SCHOOL YEAR OVER THE 4-YEAR PERIOD ENDING WITH THE 2012-2013 SCHOOL YEAR."*

Although not specified, the districts to be included in the state average calculation would have as a prerequisite, Test 1 Full Academic Year. This would eliminate from the average districts with insufficient students being statistically significant.

The procedure would sum the regression result for the specified districts and divide that result by the number of those districts to arrive at the state average. That average would be put in a state average slope labeled column in the data.

Districts whose slope is equal to or more than the state average would have a "Yes" in a met regression labeled column in the data.

The regression result must be a positive number. Districts with a positive number in the slope column, would have a "Yes" in a positive regression line labeled column.

Test 3 Percent of Students Tested:

"THE DISTRICT TESTED 95% OF HIGH SCHOOL PUPILS IN EACH TESTED SUBJECT ON THE MICHIGAN MERIT EXAMINATION"

The MDE Accountability Scorecard participation table shows whether a district meets this qualification for each year in a period including 2010 to 2014. The period to be used will be cycle 2013. The group used to determine participation will be All Students.

The "Grades" to be used for high school districts are "99" and "11" and the fields

AssessedELA and AssessedMath must both have a "Yes" for the District to meet the criteria. The result for those districts meeting this requirement will be a "Yes" in a 95 percent tested labeled column.

If columns 20 students met, regression met, positive regression met, and 95 percent tested met columns all have a "Yes", then the a column labeled as meeting the high school threshold will have a "Yes" indicating the district meets the high school requirement for payment.

Note: An ISD is not eligible for the payment. If the calculations result in an ISD receiving a "Yes" in the above column, that result will be changed to "No".

Performance Incentive Payments to Qualifying Districts for Pupil Performance in Mathematics in Grades 3 to 8

A math performance analysis labeled table will hold the aggregate data for all districts.

Note: Private school students and homeschooled students are excluded from all calculations. Students must have a Student_ID in order to be included in the calculations.

The Legislative Document requires three tests to determine the districts eligible for the grade 3 to 8 math payment. Quotes from the document are noted with quotation marks.

Test 1 Full Academic Year Students:

"THE DISTRICT HAD AT LEAST 30 FULL ACADEMIC YEAR PUPILS IN GRADES 3 TO 8 WITH A PERFORMANCE LEVEL CHANGE DESIGNATION IN MATHEMATICS."

For a student to be included in this count, the student must meet the performance level change requirement and be designated as a Full Academic Year student. This designation in the base Accountability student details table is in the column "FayTestedFlagDistrict" which must equal 1. In order to have a performance level change, the student must have a valid score in the same subject for two consecutive years, and the test taken in the second year must be one grade level higher than the test taken in the first year.

The total of those students will be put in the column "CountPLChangeFAY".

Whether the district meets this test will be indicated by "Yes" or "No" in the column labeled as meeting 30 FAY students.

Test 2 Student Average Point Score for the District Meets a Factor of 1.5:

"USING A MODEL DETERMINED BY THE DEPARTMENT THAT INCORPORATES THE MOST RECENT CUT SCORES ADOPTED FOR THE MICHIGAN EDUCATIONAL ASSESSMENT PROGRAM FOR EACH PUPIL IN GRADES 3 TO 8 IN THE 2012-2013 SCHOOL YEAR, THE DEPARTMENT SHALL CALCULATE A POINT SCORE USING A METRIC THAT ASSIGNS POINTS TO EACH OF THOSE PUPILS."

The table representation of the scheme set out by the Legislative Document is used for assigning performance level change to the following point values:

PL Previous Admin	PL Change	Points
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1	D	0
1	I	2
1	M	2
1	SD	0
1	SI	2
2	D	0
2	I	2
2	M	2
2	SD	0
2	SI	2
3	D	0
3	I	3
3	M	1
3	SD	0
3	SI	3
4	D	0
4	I	3
4	M	1
4	SD	0
4	SI	3

The Legislative Document further requires a computation of the district average for the students: **"THE DEPARTMENT SHALL THEN CALCULATE A DISTRICT AVERAGE FOR THIS METRIC FOR THE 2012-2013 SCHOOL YEAR BY TOTALING THE NUMBER OF POINTS FOR ALL PUPILS IN GRADES 3 TO 8 UNDER SUBDIVISION (A) AND DIVIDING THAT TOTAL BY THE NUMBER OF THOSE PUPILS."**

In the math performance analysis table, the count of the number of students in the district is in the column "CountPLChange"; the total points for those students is in the column "Points"; and the computed district average for a student is in the column "DistrictAverage".

The Legislative Document further requires, along with two other tests, that the district average meet a standard. **"A DISTRICT IS A QUALIFYING DISTRICT FOR THE**

PAYMENT UNDER THIS SUBSECTION IF THE DISTRICT AVERAGE FOR THE 2012-2013 SCHOOL YEAR UNDER SUBDIVISION (B) IS AT LEAST EQUAL TO A FACTOR OF 1.5"

In the math performance analysis table, the column labeled as meeting factor 1.5 indicates with a "Yes" or "No" whether the district meets this factor.

This test requires that for a student to be a part of this computation the student must have a valid math test and have a performance level change designation. In keeping with the Full Academic Year requirement, only those students with FayTestedFlagDistrict = 1 will be included in the calculation.

Test 3 Percent of Students Tested:

"THE DISTRICT TESTED AT LEAST 95% OF ITS PUPILS IN MATHEMATICS"

The Accountability Scorecard participation table shows whether a district meets this qualification. The group used to determine participation will be All Students. The cycle 2013 will be used and the "Grades" to be used will be 99, 4, and 8. The column will be "AssessedMath". In the table, this column contains "Yes", "No", or "-". Schools with more than one grade appear in multiple rows, one per grade. For a school to qualify, the school must have a "Yes" in one row and cannot have a "No" in any row.

If the columns 95% tested met, 30 FAY students met, and factor 1.5 met all contain a "Yes" the column meeting the math threshold is set to "Yes".

Performance Incentive Payments to Qualifying Districts for Pupil Performance in Reading in Grades 3 to 8

A reading performance analysis labeled table will hold the aggregate data for all districts.

Note: Private school students and homeschooled students are excluded from all calculations. Students must have a Student ID in order to be included in the calculations.

The Legislative Document requires three tests to determine the districts eligible for the grade 3 to 8 reading payment. Quotes from the document are noted with quotation marks.

Test 1 Full Academic Year Students:

"THE DISTRICT HAD AT LEAST 30 FULL ACADEMIC YEAR PUPILS IN GRADES 3 TO 8 WITH A PERFORMANCE LEVEL CHANGE DESIGNATION IN READING."

For a student to be included in this count, the student must meet the performance level change requirement and be designated as a Full Academic Year student. This designation in the base Accountability student details table is in the column "FayTestedFlagDistrict" which must equal 1. In order to have a performance level change, the student must have a valid score in the same subject for two consecutive years, and the test taken in the second year must be one grade level higher than the test taken in the first year.

The total of those students will be put in the column "CountPLChangeFAY".

Whether the district meets this test will be indicated by "Yes" or "No" in the column labeled as meeting 30 FAY students.

Test 2 Student Average Point Score for the District Meets a Factor of 1.5:

"USING A MODEL DETERMINED BY THE DEPARTMENT THAT INCORPORATES THE MOST RECENT CUT SCORES ADOPTED FOR THE MICHIGAN EDUCATIONAL ASSESSMENT PROGRAM FOR EACH PUPIL IN GRADES 3 TO 8 IN THE 2012-2013 SCHOOL YEAR, THE DEPARTMENT SHALL CALCULATE A POINT SCORE USING A METRIC THAT ASSIGNS POINTS TO EACH OF THOSE PUPILS."

The table representation of the scheme set out by the Legislative Document is used for assigning performance level change to the following point values:

PL Previous Admin	PL Change	Points
1	D	0
1	I	2
1	M	2
1	SD	0
1	SI	2
2	D	0
2	I	2
2	M	2
2	SD	0
2	SI	2
3	D	0
3	I	3
3	M	1
3	SD	0
3	SI	3
4	D	0
4	I	3
4	M	1
4	SD	0
4	SI	3

The Legislative Document further requires a computation of the district average for the students: **"THE DEPARTMENT SHALL THEN CALCULATE A DISTRICT AVERAGE FOR THIS METRIC FOR THE 2012-2013 SCHOOL YEAR BY TOTALING THE NUMBER OF POINTS FOR ALL PUPILS IN GRADES 3 TO 8 UNDER SUBDIVISION (A) AND DIVIDING THAT TOTAL BY THE NUMBER OF THOSE PUPILS."**

In the reading performance analysis table, the count of the number of students in the district is in the column "CountPLChange"; the total points for those students is in the column "Points"; and the computed district average for a student is in the column "DistrictAverage".

The Legislative Document further requires, along with two other tests, that the district average meet a standard. **"A DISTRICT IS A QUALIFYING DISTRICT FOR THE PAYMENT UNDER THIS SUBSECTION IF THE DISTRICT AVERAGE FOR THE 2012-2013 SCHOOL YEAR UNDER SUBDIVISION (B) IS AT LEAST EQUAL TO A FACTOR OF 1.5"**

In the reading performance analysis table, the column labeled as meeting factor 1.5 indicates with a "Yes" or "No" whether the district meets this factor.

This test requires that for a student to be a part of this computation the student must have a valid reading test and have a performance level change designation. In keeping with the Full Academic Year requirement, only those students with FayTestedFlagDistrict = 1 will be included in the calculation.

Test 3 Percent of Students Tested:

"THE DISTRICT TESTED AT LEAST 95% OF ITS PUPILS IN READING"

The Accountability Scorecard participation table shows whether a district meets this qualification. The group used to determine participation will be All Students. The cycle 2013 will be used and the "Grades" to be used will be 99, 4, and 8. The column will be "AssessedReading". In the table, this column contains "Yes", "No", or "-". Schools with more than one grade appear in multiple rows, one per grade. For a school to qualify, the school must have a "Yes" in one row and cannot have a "No" in any row.

If the columns 95% tested met, 30 FAY students met, and factor 1.5 met all contain a "Yes" the column meeting the reading threshold is set to "Yes".